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A RUBBER COMPOSITION FOR TIRE TREADS AND A PNEUMATIC TIRE  
HAVING A TREAD MADE OF SUCH COMPOSITION

BACKGROUND OF THE INVENTION

The present invention relates to a rubber composition for tire  
treads and a pneumatic tire having a tread made of the rubber  
composition, and particularly relates to a rubber composition for tire  
5 treads significantly improving tires in grip performance on wet road with  
remaining low fuel consumption of automobiles and a pneumatic tire  
having a tread made of the rubber composition.

In recent years, tires for automobiles have required  
performances, such as the controllability in driving, abrasion resistance,  
10 riding comfort as well as the low fuel consumption. Steps taken to  
achieve such performances include improving braking and driving on  
wet roads at high driving speed, improving controllability in driving by  
increasing the grip force on road surfaces, increasing cornering  
performance by increasing the block stiffness of the tire tread pattern to  
15 inhibit the tire from block deformation at cornering, and inhibiting  
hydroplaning from occurring by inhibiting groove parts on tire tread  
from deforming to achieve smooth draining. Recently, to satisfy these  
requirements, tires having an increased grip performance on wet road  
surface are provided by using rubber compositions obtained by mixing  
20 silica with SBR of a high styrene unit content for tire treads.

However, although the rubber compositions for tire treads  
mentioned above provide an increased grip force at a low temperature  
range of at most 15°C of road surface, they do not provide a sufficient  
grip force on wet or semi-wet road surface. Rubber compositions  
25 containing silica decrease in stiffness and decrease significantly in grip